

PARTS AND OPERATION MANUAL



Mikasa

Tamping Rammer Model MT-85H

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Revision #8 (06/26/01)



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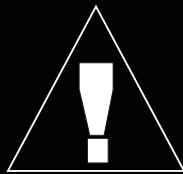
PARTS DEPARTMENT:

800-427-1244
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800-478-1244
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Atlanta • Boise • Dallas • Houston • Newark
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WARNING



CALIFORNIA — Proposition 65 Warning

Engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

HERE'S HOW TO GET HELP

*PLEASE HAVE THE MODEL AND SERIAL NUMBER
ON-HAND WHEN CALLING*

PARTS DEPARTMENT

800-427-1244 or 310-537-3700

FAX: 800-672-7877 or 310-637-3284

SERVICE DEPARTMENT/TECHNICAL ASSISTANCE

800-478-1244 or 310-537-3700

FAX: 310- 537-4259

WARRANTY DEPARTMENT

888-661-4279, or 310-661-4279

FAX: 310- 537-1173

MAIN

800-421-1244 or 310-537-3700

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MT-85H

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EC-12G ROBIN ENGINE

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NOTE

*Specification and part number
are subject to change without
notice.*

PARTS ORDERING PROCEDURES

- Dealer account number
- Dealer name and address
- Shipping address (if different than billing address)
- Return fax number
- Applicable model number
- Quantity, part number and description of each part
- Specify preferred method of shipment:
 - UPS Ground
 - UPS Second Day or Third Day*
 - UPS Next Day*
 - Federal Express Priority One (please provide us with your Federal Express account number)*
 - Airborne Express*
 - Truck or parcel post

**Normally shipped the same day the order is received, if prior to 2PM west coast time.*

Earn Extra Discounts when you order by FAX!

All parts orders which include complete part numbers and are received by fax qualify for the following extra discounts:

<u>Number of line items ordered</u>	<u>Additional Discount</u>
1-9 items	3%
10+ items**	5%

Get special freight allowances when you order 10 or more line items via FAX!**

- UPS Ground Service at no charge for freight
- PS Third Day Service at one-half of actual freight cost

No other allowances on freight shipped by any other carrier.

**Common nuts, bolts and washers (all items under \$1.00 list price) do not count towards the 10+ line items.

DISCOUNTS ARE SUBJECT TO CHANGE

Fax order discount and UPS special programs revised June 1, 1995

**Extra Fax Discount
for Domestic USA
Dealers Only**

**Up to 5%
extra savings!**

**UPS
Special**
For faxed orders only

**Now! Direct TOLL-FREE access
to our Parts Department!**

Toll-free nationwide:

800-421-1244

Toll-free FAX:

800/6-PARTS-7 • 800-672-7877

RULES FOR SAFE OPERATION

CAUTION:



Failure to follow instructions in this manual may lead to serious injury or even death! This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

The following safety guidelines should always be used when operating the MT-85H Tamping Rammer:

GENERAL SAFETY

- **DO NOT** operate or service this equipment before reading this entire manual.



- This equipment should not be operated by persons under 18 years of age.

- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job.



- **NEVER** operate this equipment when not feeling well due to fatigue, illness or taking medicine.

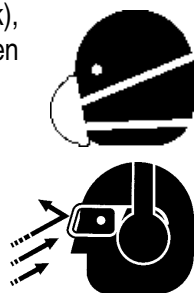


- **NEVER** operate this equipment under the influence of drugs or alcohol.



- **ALWAYS** check the machine for loosened threads or bolts before starting.

- **ALWAYS** wear proper respiratory (mask), hearing and eye protection equipment when operating the rammer.



- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.

- Manufacture does not assume responsibility for any accident due to equipment modifications.

- **NEVER** use accessories or attachments, which are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.

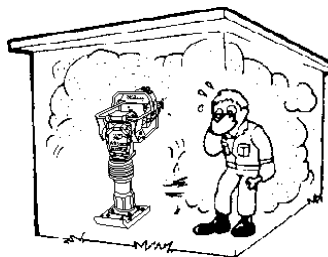
- **NEVER** touch the hot exhaust manifold, muffler or cylinder. Allow these parts to cool before servicing engine or rammer.



- **High Temperatures** – Allow the engine to cool before adding fuel or performing service and maintenance functions. Contact with *hot* components can cause serious burns.

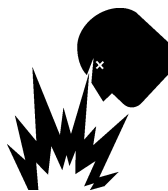
- The engine section of this rammer requires an adequate free flow of cooling air. **NEVER** operate the rammer in any enclosed or narrow area where free flow of the air is restricted.

If the air flow is restricted it will cause serious damage to the rammer or engine and may cause injury to people. Remember the rammer's engine gives off **DEADLY** carbon monoxide gas.



- **ALWAYS** refuel in a well-ventilated area, away from sparks and open flames.

- **ALWAYS** use extreme caution when working with **flammable** liquids. When refueling, **stop the engine** and allow it to cool. **DO NOT** smoke around or near the machine. Fire or explosion could result from fuel vapors, or if fuel is spilled on a hot engine.



- **NEVER** operate the rammer in an explosive atmosphere or near combustible materials. An explosion or fire could result causing severe **bodily harm or even death**.

RULES FOR SAFE OPERATION

- **NEVER** Run engine without air filter. Severe engine may occur.
- Always service air cleaner frequently to prevent carburetor malfunction.
- Always be sure the operator is familiar with proper safety precautions and operations techniques before using rammer.
- Always store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children.
- **NEVER** use accessories or attachments, which are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- **NEVER** Run engine without air cleaner. Severe engine damage may occur.
- Always read, understand, and follow procedures in Operator's Manual before attempting to operate equipment.
- Always be sure the operator is familiar with proper safety precautions and operations techniques before using pump.
- Always store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children.
- Refer to the ***ROBIN Engine Owner's Manual*** for engine technical questions or information recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.

Transporting

- Always shutdown engine before transporting.
- Tighten fuel tank cap securely and close fuel cock to prevent fuel from spilling.
- Drain fuel when transporting rammer over long distances or bad roads.
- When placing the rammer inside a truck-bed for transport, always tie-down the rammer.

Emergencies

- Always know the location of the nearest ***fire extinguisher*** and ***first aid kit***. Know the location of the nearest telephone. Also know the phone numbers of the nearest ***ambulance, doctor*** and ***fire department***. This information will be invaluable in the case of an emergency.

Maintenance Safety

- **NEVER** lubricate components or attempt service on a running machine.
- Always allow the machine a proper amount of time to cool before servicing.
- Keep the machinery in proper running condition.
- Fix damage to the machine immediately and always replace broken parts.
- Dispose of hazardous waste properly. Examples of potentially hazardous waste are used motor oil, fuel and fuel filters.
- **DO NOT** use plastic containers to dispose of hazardous waste.

OPERATION AND SAFETY DECALS

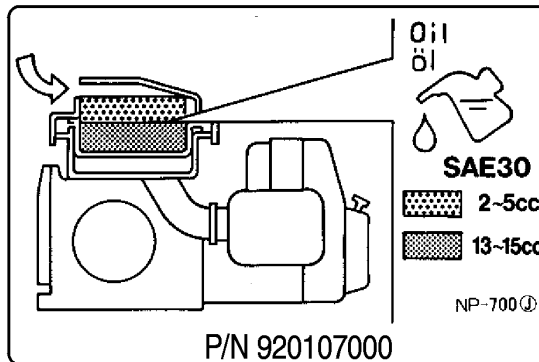
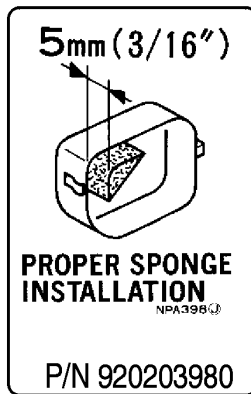
Mikasa

P/N 920106460

First, remove the element from the pre-cleaner located at the top of the machine. Clean the element with solvent. Apply SAE-30 motor oil as follows: top element (yellow) with 2 to 5 cc and the bottom element (gray) with 13 to 15 cc. Be sure to squeeze out excess oil before reinstalling.

NPA 437 Ⓢ

P/N 920204370



When you stop the engine, be sure to close the fuel cock.

NPA-399 Ⓢ

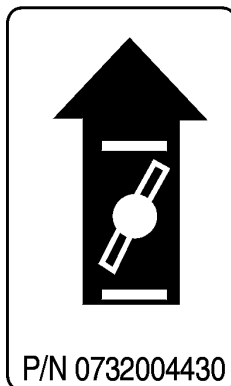
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CAUTION !

- READ OWNER'S SERVICE MANUAL BEFORE OPERATING OR SERVICING THIS MACHINE.
- ALWAYS KEEP UNAUTHORIZED, INEXPERIENCED, UNTRAINED PEOPLE AWAY FROM THIS MACHINE.
- MAKE SURE ALL SAFETY DEVICES ARE OPERATIONAL BEFORE THIS MACHINE IS STARTED. MAKE SURE ENGINE IS TURNED OFF AND SPARK PLUG WIRE DISCONNECTED BEFORE SERVICING THE MACHINE OR COMING IN CONTACT WITH ANY MOVING PART. IF EQUIPMENT IS POWERED BY AN ELECTRIC MOTOR, DISCONNECT ELECTRICAL PLUG.
- NEVER LEAVE MACHINE UNATTENDED WHEN OPERATING. ALWAYS STOP ENGINE AND ALLOW ENGINE TO COOL BEFORE ADDING FUEL OR OIL.

NPA-329 Ⓢ

P/N 920203290



エアクリーナ取扱注意

エレメントが汚れた時は白灯油で洗浄し、洗浄後は混合油(白灯油2~4:エンジンオイル)の中に浸し、点滴しない程度によく振り切って粗込んで下さい。但しホコリの多い場所では早めに清掃して下さい。

NOTICE

CLEAN THE ELEMENT WITH KEROSENE WHEN DIRTY. AFTER THE CLEANING, LUBRICATE IT MIXED OIL (KEROSENE 2~4: ENGINE OIL 1). SQUEEZE OUT THE OIL, AND REPLACE IT, AND CLEAN IT MORE OFTEN WHEN OPERATING IN DUSTY CONDITIONS.

TOKYO KOUKENSHA CO., LTD. JAPAN

P/N 1073273308

Definition of Tamping Rammer

The Mikasa MT-85H tamping rammer is a powerful compacting tool capable of applying a tremendous force in consecutive impacts to a soil surface. Its applications include soil compacting for road, embankments and reservoirs as well as backfilling for gas pipelines, water pipelines and cable installation work.

The impact force of the MT-85H levels and uniformly compacts voids between soil particles to increase dry density.

Circular motion is converted to create impact force. The MT-85 H tamping rammer develops a powerful compacting force at the foot of the rammer. To maintain optimum performance, proper operation and service are essential.

Construction of Tamping Rammer

The Mikasa MT-85H is equipped with an air cooled, two cycle gasoline engine. Transmission of the power takes place by increasing the engine speed to engage the centrifugal clutch.

Rammer Gearbox and Spring Cylinder

The Mikasa MT-85H uses an oil bath lubrication system. Always check the oil level through the oil level sight glass at the rear of the tamper foot.

Controls

Before starting the MT-85H Tamping Rammer identify and understand the function of the controls, see Figure 1 on page 9.

Table 1. MT-85H Rammer Specifications

MODEL	MT-85H U.S. (metric)
Overall Height	41.3 in. (1,050 mm)
Overall Width	15.4 in (390 mm)
Over Length	26.4 in (710 mm)
Shoe Size	13.0 in. x 13.4 (330 mm x 340 mm)
Blows/minute	670
Impact Force	4,410 lbs./blow (2,000 kg/blow)
Clutch	Automatic Centrifugal
Operating Weight	168 lbs. (76 kg)

Table 2. MT-85H Engine Specifications

MODEL	Robin EC12-G
Type	Air-Cooled 2 Stroke Gasoline Engine
Piston Displacement	6.96 cu.in. (114 cc)
Max. Output	4.0 hp/4,000 rpm (3.0 KW)
Max. Governed Speed, No Load	4,000 rpm
Cooling System	Air-Cooled
Lubrication System	Fuel-Lubrication Oil Spraying System
Fuel	Unleaded gasoline 25:1 (oil)
Starting System	Recoil Starter

NOTE

Specifications are general and are subject to change without notice. If exact measurements are required, equipment should be weighed and measured.

MT-85H — CONTROLS AND COMPONENTS

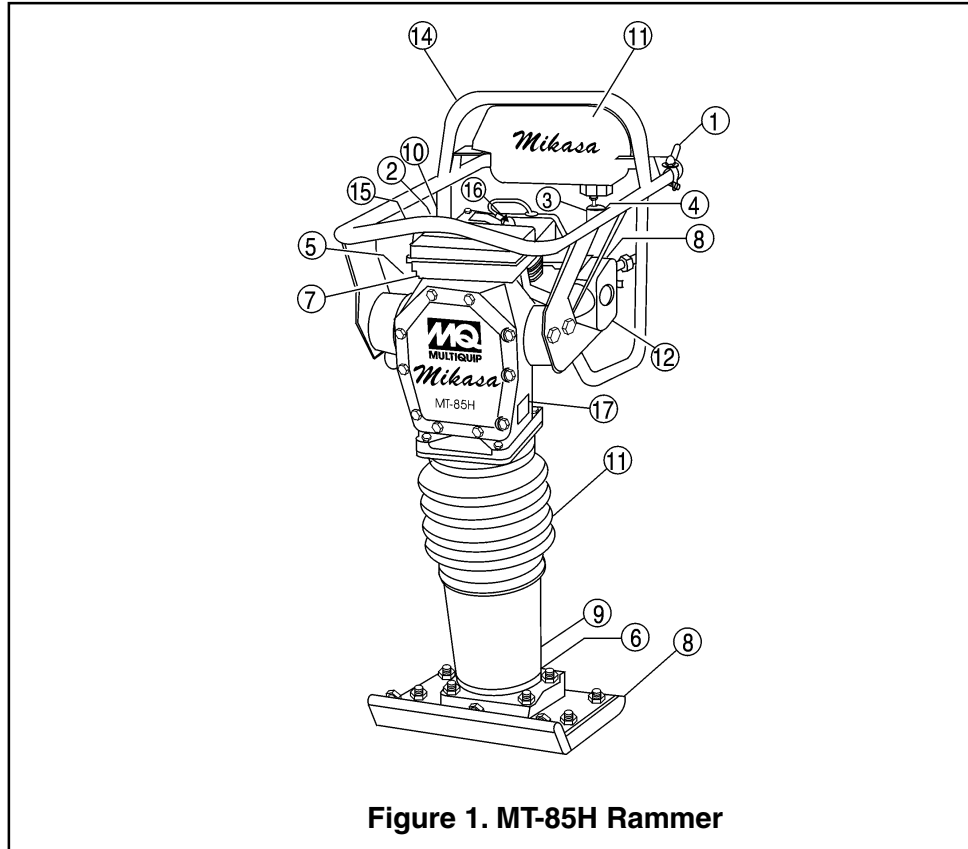


Figure 1. MT-85H Rammer

Figure 1 shows the location of the controls and components for the MT-85H Tamping Rammer. The functions of each control is described below:

1. **Throttle Lever** – Controls engine speed and the tamping action of the rammer.
2. **Engine Stop Switch** – Controls the starting and stopping of the engine. Switch must be in the "ON" position when starting the engine.
3. **Choke Lever** – Used when starting the engine. Normally used in cold weather conditions. In cold weather turn the choke lever to the fully closed position, in warm weather set choke lever half way or completely open.
4. **Fuel Shut-Off Valve** – Supplies fuel from the fuel tank to the engine. To begin fuel flow move the fuel shut-off valve downward.
5. **Excess Fuel Drain Valve** – Open drain plug when excess fuel is present in the carburetor, or crankcase.
6. **Drain Valve** – Open this valve to remove oil from the bellows.
7. **Air Cleaner** – Pre-cleans (first stage) dirt and other debris from entering the engine.
8. **Foot** – Laminated wood with tempered steel plate for superior shock absorption.
9. **Oil Level Sight Glass** – Indicates the level of oil in the oil bath reservoir.
10. **Recoil Starting Handle** – Used when starting the engine. Pull starter handle sharply and quickly, then return starter handle to starter case before releasing.
11. **Fuel Tank/Cap** – Poly fuel tank to avoid rust and corrosion, remove this cap to add gasoline.
12. **Air Cleaner** – Prevents dirt (second stage) and other debris from entering the engine.
13. **Bellows** – Reservoir for oil bath.
14. **Handle** – To operate rammer **GRIP** handle assembly firmly on both sides.
15. **Muffler** – Used to reduce noise and emissions.
16. **Spark Plug** – Provides spark to the ignition system, replace with engine manufactures recommended type spark plug.
17. **Nameplate** – Displays information regarding the rammer.

This section is intended to assist the operator with the initial start-up of the MT-85H Tamping Rammer. It is extremely important that this section be read carefully before attempting to operate the rammer.

DO NOT use your rammer until this section is thoroughly understood.

CAUTION:



Failure to understand the operation of the MT-85H Tamping Rammer could result in severe damage to the trowel or personal injury.

Rammer Gearbox and Spring Cylinder Oil Bath

This unit uses an oil bath lubrication system. Perform the following:

1. Check the oil level through the oil level sight glass at the rear of the tamping foot.
2. If oil is not visible, add 10W-30 motor oil. The bath contains approximately 1.7 pints (800 cc.)

NOTE

The oil level should be kept at the half way point of the sight glass.

Engine

Before pouring fuel into the fuel tank (Figure 2) perform the following:

1. Find a container for the mixing of fuel and gasoline.
2. Use a quality outboard motor oil for 2-cycle engines.
3. Mix gasoline (unleaded) with oil at a 25:1 ratio. Mix well.
4. Be sure to filter the mixed fuel with a strainer at the filler port.
5. If fuel spills on the fuel cap when operating rammer, replace the rubber leak stopper inside the cap.

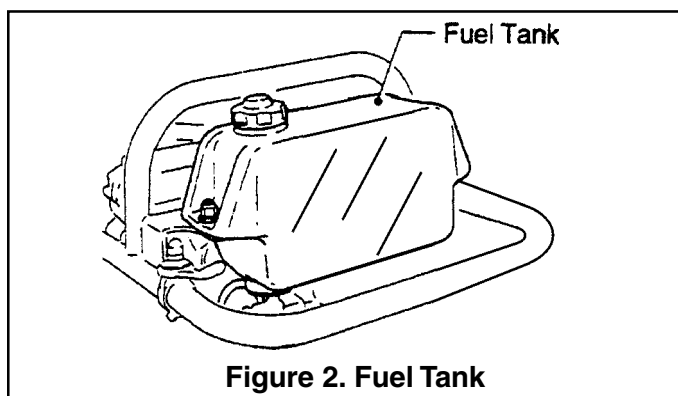


Figure 2. Fuel Tank

Inspection

1. Check all nuts, bolts fasteners for tightness. Retighten as necessary.
2. Clean any dirt from the recoil starter and foot pedestal. Wipe the entire unit clean before operating.
3. Replace any missing or damaged Safety Operation decals.
4. Adjust height of handle. Adjust handle by loosening nuts and moving handle to suit operation. Retighten nuts.

Initial Start-up

When starting the MT-85H Tamping Rammer perform the following:

1. Open the shut-off valve by moving the strainer lever downward (Figure 3), then set the engine start/stop switch (Figure 4) to the "START" position.

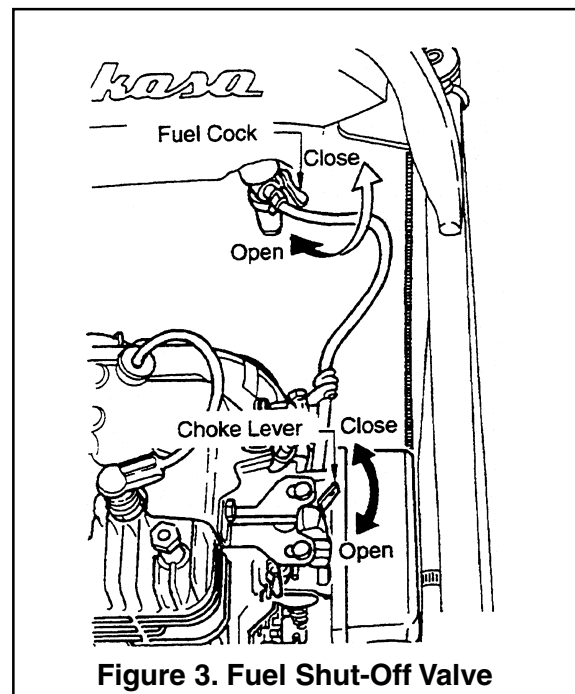


Figure 3. Fuel Shut-Off Valve

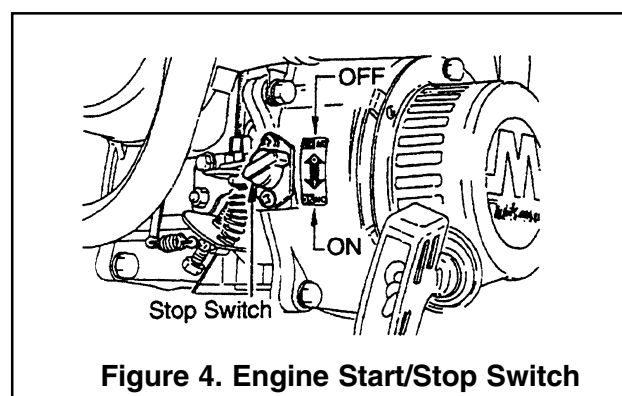
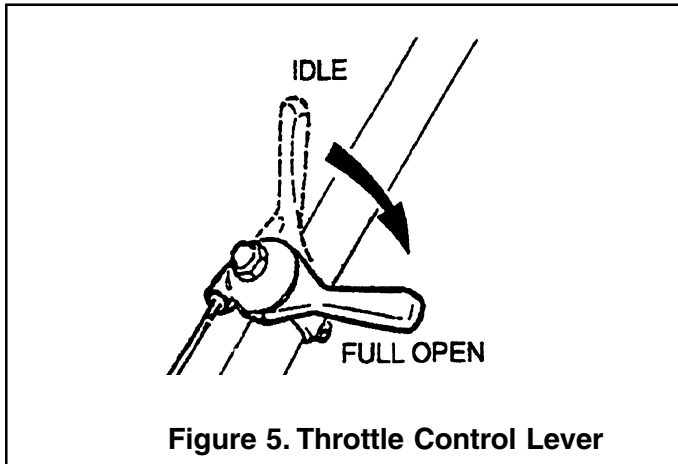
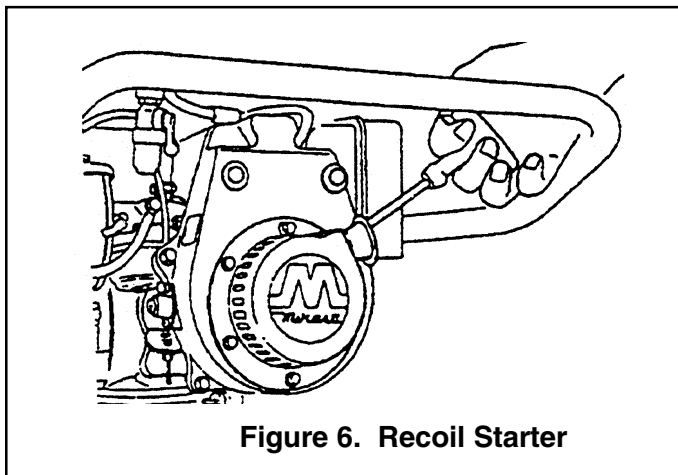


Figure 4. Engine Start/Stop Switch

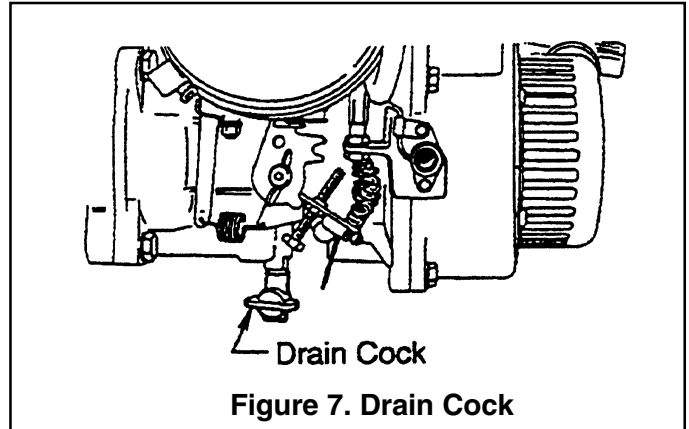
- Close the choke lever Figure 3 and move the throttle lever to the "Full Open" position. Turning the choke lever 90 degrees clockwise closes the choke. In cold weather, start the unit with choke fully closed. In warm weather or when the engine is warm, the unit can be started with choke halfway or completely open.



- Grip the recoil starter (Figure 6) handle and pull it until you feel a slight resistance. Then pull sharply and quickly. Return the recoil starter handle to the starter case before releasing.



- If engine fails to start, move the choke lever (Figure 3) to the half open position to avoid flooding.
- Repeat steps 1 thru 4.
- If the engine does not start after repeated attempts, check the spark plug for excess fuel. Clean and replace the spark plug as needed.
- If the carburetor is flooded or the crankcase is loaded with fuel, open the drain plug as shown in Figure 7 and drain excess fuel.



Operation

- To start the rammer tamping action, move the throttle lever quickly from **IDLE** to the **FULL OPEN** position (Figure 5). **DO NOT** move the throttle lever slowly as this may cause damage to the clutch or spring.

CAUTION:



Make sure that the throttle lever is moved to the **FULL OPEN** position. Operating the rammer at less than full speeds can result in damage to the clutch springs or foot

- The MT-85H Tamping rammer is designed to run at 4,000 rpm. At optimum rpm the foot hits at the rate of 665 impacts per minute. Increasing throttle speed past factory set rpm does not increase impacts and may damage unit. The MT-85H is designed to advance while tamping. For faster advance, pull back slightly on the handle so that rear of foot contacts soil first.
- To stop the tamping action, move throttle lever quickly from the **FULL OPEN** to **IDLE** position.

Stopping The Engine

Normal Shutdown

- Move throttle lever quickly from the **FULL OPEN** to **IDLE** position (Figure 5) and run the engine for three minutes at low speed. After the engine **cools**, turn the engine start/stop switch to the "STOP" position (Figure 4) until engine comes to a complete stop.
- Close the fuel shut-off valve by moving the strainer lever upward. See Figure 3.

Emergency Showdown

- Move the throttle lever quickly to the **IDLE** position, and turn the engine start/stop switch to the **STOP** position.

Maintenance

Perform the scheduled maintenance procedures as indicated:

DAILY

- Thoroughly remove dirt and oil from the engine and control area. Clean or replace the air cleaner elements as necessary. Check and retighten all fasteners as necessary. Check the spring box and bellows for oil leaks. Repair or replace as needed.

WEEKLY

- Remove the fuel filter cap and clean the inside of the fuel tank.
- Remove or clean the filter at the bottom of the tank.
- Remove and clean the spark plug, then adjust the spark gap to 0.02~0.03 inch (0.6~0.7 mm). This unit has electronic ignition, which requires no adjustments.
- Clean air cleaner cover.

200 - 300 HOURS (Air Cleaner Figure 8)

- Remove the element from the pre-cleaner at the top of the crankcase (body side) and clean it with cleaning oil (kerosene).
- Lubricate the top element (yellow) with 2~5cc of engine oil SAE-30.
- Lubricate bottom element (gray) with 13 ~15cc of engine oil SAE-30 and completely squeeze out the excess oil from the element before installing.

- The air cleaner on the engine side will hardly be contaminated, if it is, however after cleaning the element with kerosene, dip it in mixed oil consisting of 3 parts of gasoline and 1 part of engine oil. Then tightly squeeze outer primary element (sponge) and shake off well the inner secondary element before installing them.

200 - 300 HOURS (Oil Bath)

- Drain oil reservoir on foot housing. Refill with approximately 1.7 pt. (800cc) of 10W-30 motor oil. Oil should be midway in sight glass. Break in oil should be changed after first 50 hours.

Yearly

- Check the fuel line and the oil line regularly for damage and to ensure that there are no leaks.
- Replace the oil and fuel lines every two years to maintain the performance and flexibility lines.

Long Term Storage

- Drain fuel from fuel tank, fuel line and carburetor.
- Remove spark plug and pour a few drops of motor oil into cylinder. Crank engine 3 to 4 times so that oil reaches all internal parts.
- Clean exterior with a cloth soaked in clean oil.
- Store unit covered with plastic sheet in moisture free and dust free location out of direct sunlight.

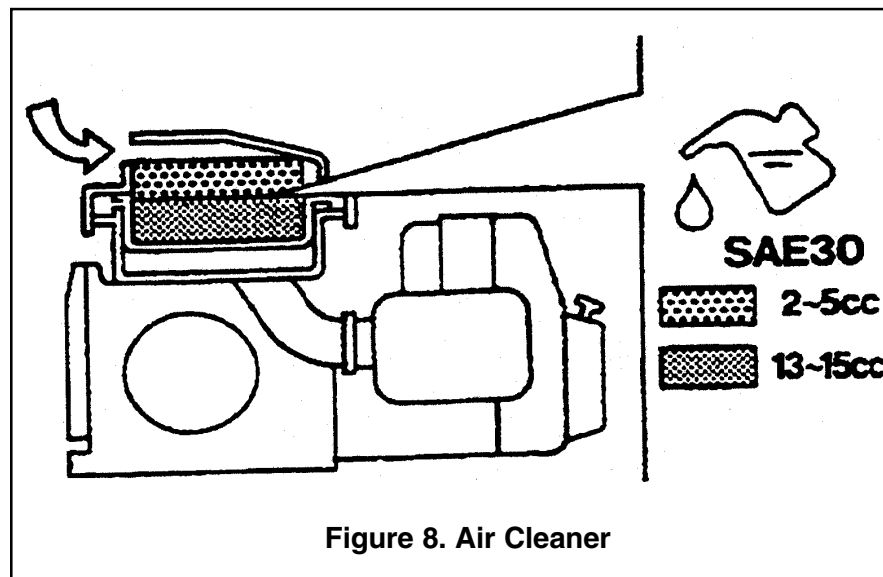


Figure 8. Air Cleaner

MT-85H — TROUBLESHOOTING GUIDE

TABLE 3. ENGINE TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Difficult to start		
Fuel is available but spark plug will not ignite. (Power available at high tension cable).	Ignition plug being bridge?	Check ignition system.
	Carbon deposit at ignition?	Clean or replace ignition.
	Short circuit due to defective insulators?	Replace insulators.
	Improper spark gap?	Set spark plug gap to the correct gap.
Fuel is available but spark plug will not ignite. (Power NOT available at high tension cable).	Short circuit at stop switch?	Check stop switch circuit. Replace stop switch if defective.
	Ignition coil defective?	Replace ignition coil.
Fuel is available and spark plug ignites (compression normal).	Muffler clogged with carbon deposits?	Clean or replace muffler.
	Mixed fuel quality is inadequate?	Check fuel to oil mixture.
	Fuel in use inadequate (water, dust)?	Flush fuel sytem and replace with fresh fuel.
	Air Cleaner clogged?	Clean or replace air cleaner.
Fuel is available and spark plug ignites (compression low).	Defective cylinder head gasket?	Tighten cylinder head bolts or replace head gasket.
	Cylinder worn?	Replace cylinder.
	Spark plug loose?	Tighen spark plug.
Operation not satisfactory		
Not enough power available (compression normal, no miss-firing).	Air cleaner clogged?	
	Air in fuel line?	Bleed (remove air) from fuel line.
	Fuel level in carbureator float chamber improper?	Adjust carbureator float
	Carbon deposits in cylinder?	Clean or replace cylinder
Not enough power available (compression normal, miss-firing).	Ignition coil defective?	Flush fuel sytem and replace with fresh fuel.
	Ignition plug often shorts?	Replace ignition wires, clean ignition.
	Fuel in use inadequate (water, dust)?	Flush fuel sytem and replace with fresh fuel.
Engine overheats.	Mixed fuel quality is inadequate?	Check fuel to oil mixture.
	Excessive carbon depostion in combustion chamber?	Clean or replace crankcase.
	Exhaust or muffler clogged with carbon.	Clean or replace muffler.
	Spark plug heat value incorrect?	Replace spark plug with correct type spark plug.

MT-85H — TROUBLESHOOTING GUIDE

TABLE 3. ENGINE TROUBLESHOOTING (continued)

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Operation not satisfactory		
Rotational speed fluctuates.	Governor adjustment improper?	Adjust governor to correct lever.
	Governor spring defective?	Clean or replace ignition.
	Fuel flow erratic?	Check fuel line.
	Air taken in through suction line?	Check suction line.
Recoil starter not working properly.	Dust in rotating part?	Clean recoil starter assembly.
	Spring spring failure?	Replace sprial spring.

TABLE 4. RAMMER TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Engine rotates but amplituide not uniform or does not strike.	Operating speed of throttle lever is incorrectly set?	Set throttle lever to correct position.
	Oil in excess?	Drain excess oil. Bring to correct level.
	Clutch slips?	Replace or adjust clutch.
	Spring Failure?	Replace sprial spring.
	Speed of engine improper?	Adjust engine speed to correct operating RPM setting.

EXPLANATION OF CODE IN REMARKS COLUMN

How to read the marks and remarks used in this parts book.

Items Found In the “Remarks” Column

Serial Numbers-Where indicated, this indicates a serial number range (inclusive) where a particular part is used.

Model Number-Where indicated, this shows that the corresponding part is utilized only with this specific model number or model number variant.

Items Found In the “Items Number” Column

All parts with same symbol in the number column, *, #, +, %, or ■, belong to the same assembly or kit.

NOTE

If more than one of the same reference number is listed, the last one listed indicates newest (or latest) part available.

NOTE

The contents of this catalog are subject to change without notice.

MT-85H— SUGGESTED SPARE PARTS

MT-85H RAMMER 1 TO 3 UNITS

Qty.	P/N	Description
1	956300130	LEVER, THROTTLE
3	354030030	ELEMENT, YELLOW
3	354030040	ELEMENT, GRAY
1	0430440033	CAP, FUEL TANK
1	954300390	COCK, FUEL
1	954405080	STRAINER, FUEL TOP/BOTTOM
2	301419750	FILTER, IN-LINE FUEL
3	1573620101	ELEMENT, SET ENGINE
1	0662000070	BUTTN, STOP (S/N C-4154 & BELOW)
3	0650140460	SPARK PLUG
1	0660000370	SWITCH, STOP (ABOVE C-4154-4178 & C-4207)
1	956106040	THROTTLE ,WIRE
1	402010110	SPRING, THROTTLE RETURN

MT-85H RAMMER 3 TO 5 UNITS

1	956300130	LEVER, THROTTLE
1	956106040	THROTTLE WIRE
1	402010110	SPRING, THROTTLE RETURN
4	354030030	ELEMENT, YELLOW
4	354030040	ELEMENT, GRAY
2	354910020	CLAMP, BELLOWS
1	3544332700	BELLOWS
1	0430440033	CAP, FUEL TANK
1	954300390	COCK, FUEL
2	954405080	STRAINER, FUEL TOP/BOTTOM
4	301419750	FILTER, IN-LINE FUEL
4	1573620101	ELEMENT SET ENGINE
2	0662000070	BUTTN, STOP (S/N C-4154 & BELOW)
6	0650140460	SPARK PLUG
1	1616230207	CARBURETOR KIT
2	0660000370	SWITCH, STOP (ABOVE C-4154-4178 & C-4207))

NOTE

Part number on this Suggested Spare Parts List may super cede/ replace the P/N shown in the text pages of this book.

MT-85H RAMMER 5 TO 10 UNITS

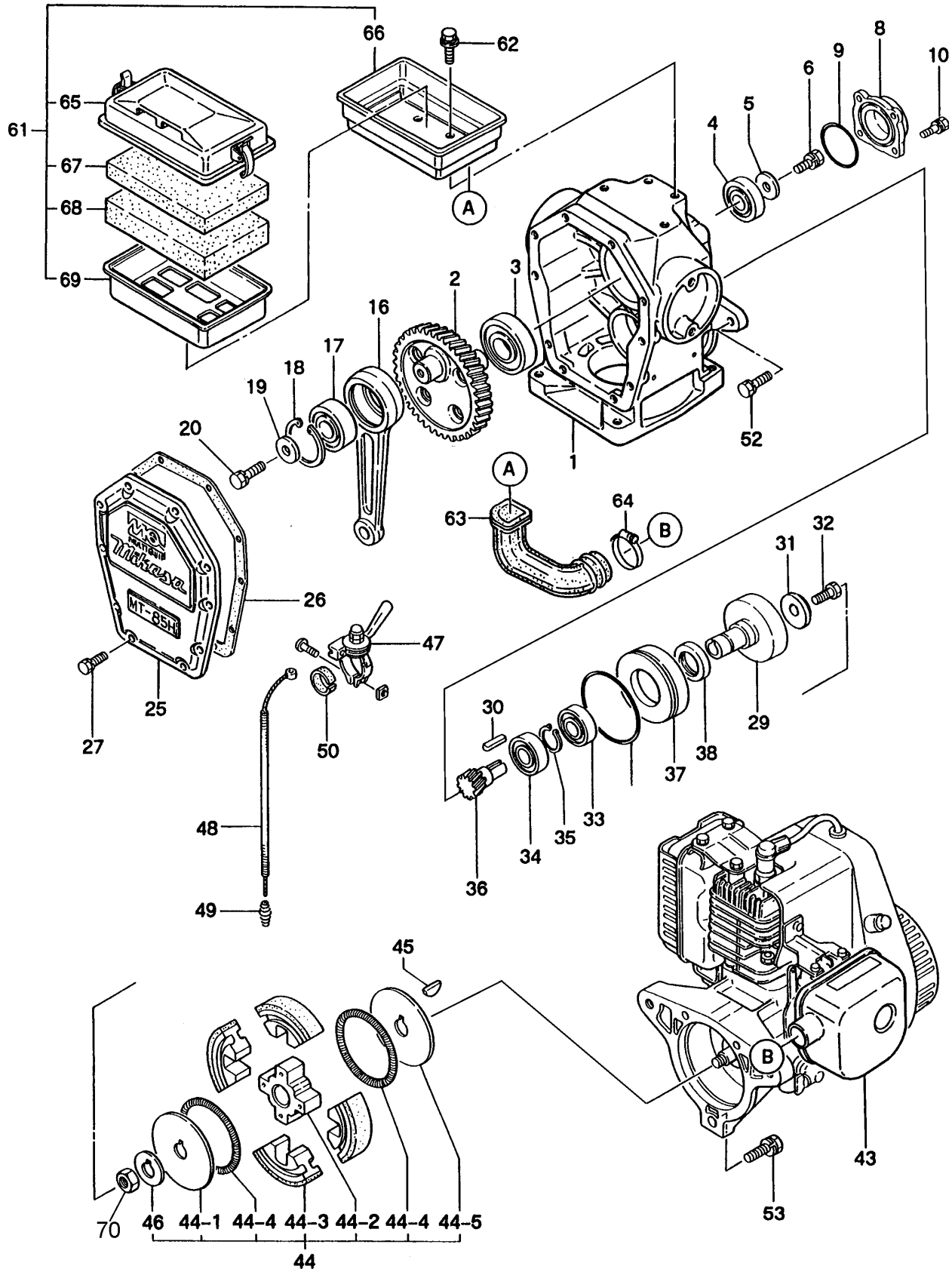
2	956300130	LEVER, THROTTLE
2	956106040	THROTTLE WIRE
2	402010110	SPRING, THROTTLE RETURN
6	354030030	ELEMENT, YELLOW
6	354030040	ELEMENT, GRAY
4	354910020	CLAMP, BELLOWS
2	354332700	BELLOWS
2	0430440033	CAP, FUEL TANK
2	954300390	COCK, FUEL
4	954405080	STRAINER, FUEL TOP/BOTTOM
6	301419750	FILTER, IN-LINE FUEL
3	1573620101	ELEMENT SET ENGINE
3	0662000070	BUTTN, STOP (S/N C-4154 & BELOW)
10	0650140460	SPARK PLUG
3	0660000370	SWITCH, STOP (ABOVE C-4154 & C-4207)
3	1611510101	GASKET, COMPLETE HEAD
3	1613520101	GASKET, COMPLETE EXHAUST
3	2263272008	GASKET, AIR CLEANER
4	1573500103	GASKET, INSULATOR, CARBURETOR
3	1616230207	CARBURETOR KIT
1	1616230100	CARBURETOR ASSEMBLY
2	050201500	O-RING, UPPER GUIDE CYLINDER
4	050931500	O-RING, MIDDLE GUIDE CYLINDER
2	050101100	O-RING, LOWER GUIDE CYLINDER
2	050100950	O-RING, FOOT PLATE GUIDE CYLINDER

MT-85H RAMMER 10+ UNITS

6	956300130	LEVER, THROTTLE
6	956106040	THROTTLE WIRE
6	402010110	SPRING, THROTTLE RETURN
16	354030030	ELEMENT, YELLOW
16	354030040	ELEMENT, GRAY
10	354910020	CLAMP, BELLOWS
5	3544332700	BELLOWS
5	0430440033	CAP, FUEL TANK
4	954300390	COCK, FUEL
6	954405080	STRAINER, FUEL TOP/BOTTOM
12	301419750	FILTER, IN-LINE FUEL
16	1573620101	ELEMENT SET ENGINE
4	0662000070	BUTTN, STOP (S/N C-4154 & BELOW)
16	0650140460	SPARK PLUG
4	0660000370	SWITCH, STOP (ABOVE C-4154-4178 & C-4207)
3	1611510101	GASKET, COMPLETE HEAD
3	1613520101	GASKET, COMPLETE EXHAUST
3	2263272008	GASKET, AIR CLEANER
4	1573500103	GASKET, INSULATOR, CARBURETOR
1	301421360	CLUTCH ASSY
1	354211840	AIR CLEANER ASSEMBLY
5	1616230207	CARBURETOR KIT
1	1616230100	CARBURETOR ASSEMBLY
1	1615010400	RECOIL STARTER ASSEMBLY
4	050201500	O-RING, UPPER GUIDE CYLINDER
8	050931500	O-RING, MIDDLE GUIDE CYLINDER
4	050101100	O-RING, LOWER GUIDE CYLINDER
4	050100950	O-RING, FOOT PLATE GUIDE CYLINDER

MT-85H — CRANKCASE AND ENGINE

CRANKCASE AND ENGINE



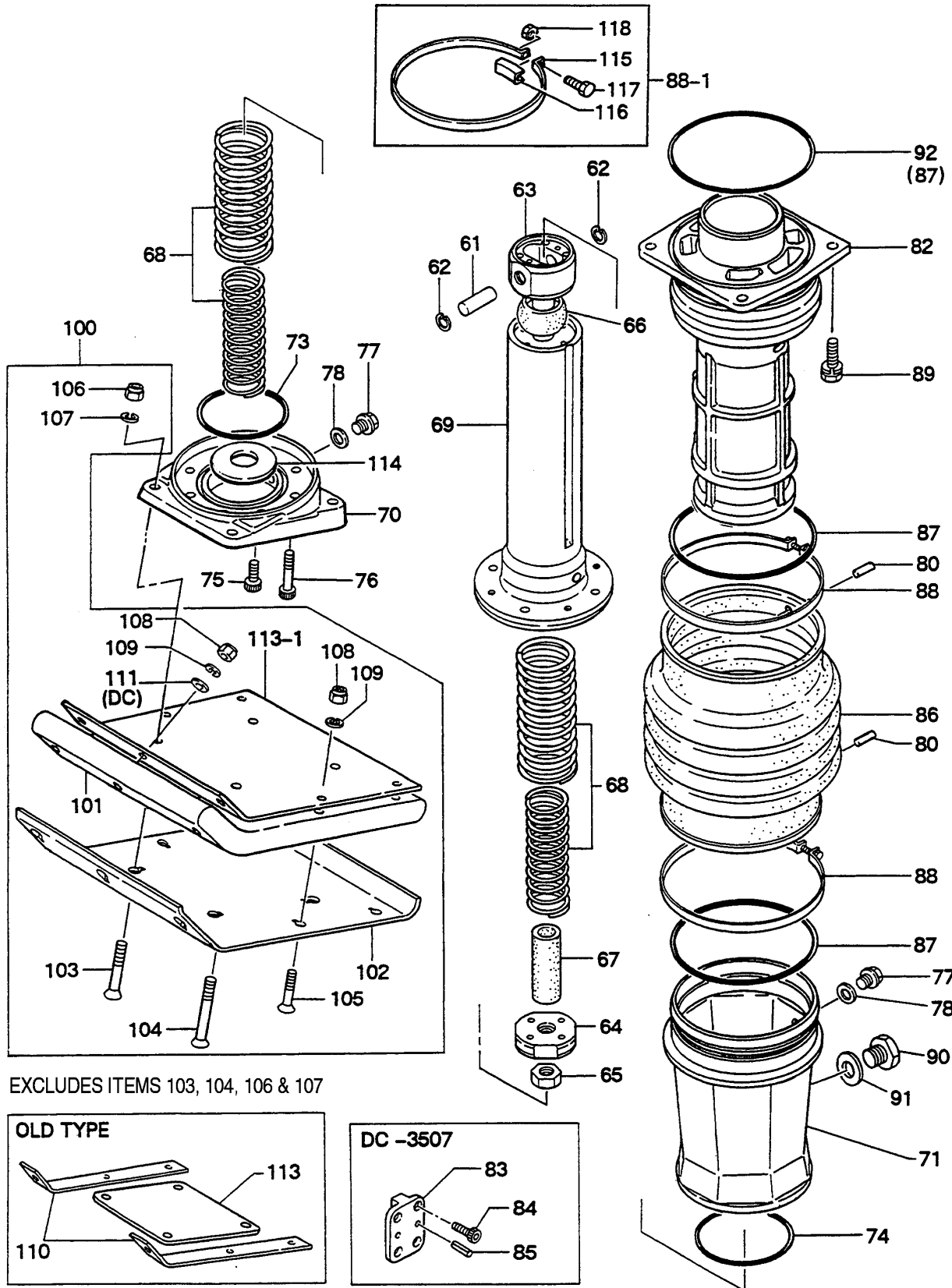
MT-85H — CRANKCASE AND ENGINE

CRANKCASE AND ENGINE

NO	PART NO	PART NAME	QTY.	REMARKS
1	354111850	CRANKCASE	1	REPLACES 352110010 & 352111130
2	352321580	CRANK GEAR	1	
3	040006207	BEARING 620	1	
4	040006305	BEARING 6305	1	
5	952400690	WASHER 9X35X4.5	1	
6	01108025	BOLT 8X25 H, SW	1	REPLACES 002210825
8	352423271	BEARING COVER	1	
9	050920630	O-RING	1	
10	011706020	BOLT H, SW	4	REPLACES 002210620
16	301300530	CONNECTING ROD	1	
17	040006305	BEARING 6305	1	
18	080100620	STOP RING R-62	1	
19	952400690	WASHER 9X35X4.5	1	
20	011708025	BOLT 8X25 H, SW	1	
25	354211980	FRONT COVER	1	
26	354444460	PACKING FRONT COVER	1	
27	011706020	BOLT 6X20 H,SW	10	
29	352437870	CLUTCH DRUM	1	
30	951010060	KEY 5X5X32	1	
31	952405490	LOCK WASHER	1	
32	002210820	BOLT 8X20 H, SW	1	
33	041006207	BEARING 6207Z	1	
34	0600250010	BEARING 6205	1	REPLACES 040006205
35	080200350	STOP RING S-35	1	
36	301010160	PINION	1	
37	352441340	SPACER	1	
38	060404010	OIL SEAL TC-40528	1	
39	050100950	O-RING G-95	1	
43	911101206	ENGINE ASSY. EC12G	1	
44	301421363	CLUTCH ASSY.	1	INCLUDES ITEMS W/*, REPLACES 301421360
44-1*	943060020	CLUTCH GUIDE (B)	1	
44-2*	943050050	CLUTCH BOSS	1	
44-3*	943020020	CLUTCH SOE	4	
44-4*	943030020	CLUTCH SPRING	2	
44-5*	943060010	CLUTCH GUIDE (A)	1	
45	0053204201	WOODRUFF KEY	1	
46*	301010210	LOCK WASHER CLUTCH	1	
47	956300130	THROTTLE LEVER ASSY.	1	
48	956106040	THROTTLE WIRE	1	
49	402010110	RETURN SPRING	1	REPLACES 301010950
50	959403750	RUBBER SLIP STOP	1	
52	012710045	BOLT 10X45	2	REPLACES 002211045
53	012710035	BOLT 10X35 H, HS	1	
61	354211841	AIR CLEANER ASSY.	1	INCLUDES ITEMS W/#, REPLACES 354211840
62	011008020	BOLT 8X20 SW	4	REPLACES 002200820
63	354330590	INTAKE PIPE	1	
64	507010110	CLAMP TC-200	1	
65#	354030010	BODY	1	
66#	354030020	BACK PLATE	1	
67#	354030030	ELEMENT YELLOW	1	
68#	354030040	ELEMENT GRAY	1	
69#	354030050	ELEMENT FRAME	1	
70	0021714000	NUT	1	

MT-85H — GUIDE CYLINDER AND FOOT

GUIDE CYLINDER AND FOOT



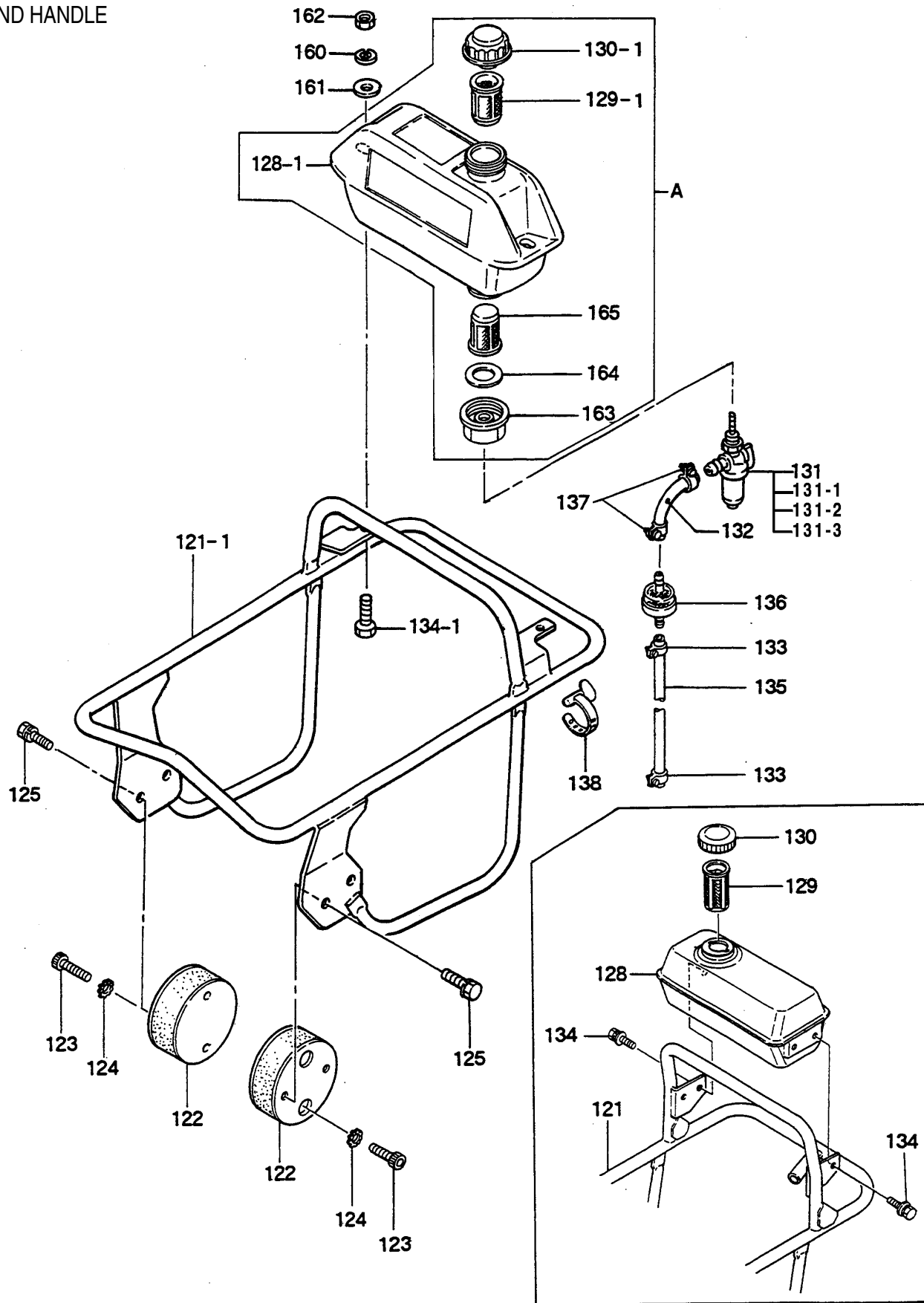
MT-85H — GUIDE CYLINDER AND FOOT

GUIDE CYLINDER AND FOOT

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
61	352423290	PISTON PIN	1	
62	080100150	STOP RING R-15	2	
63	352210380	PISTON ROD	1	
64	352437330	PISTON END	1	
65	020118150	NUT M18, P1.5	1	
66	352431430	STOPPER, UPPER	1	
67	352437470	STOPPER, LOWER	1	
68	352326610	MAIN SPRG	2	
69	354212480	SPRING CYLINDER	1	
70	352210401	FOOT PLATE	1	
71	352110042	PROTECTION SLEEVE	1	
73	050100950	O-RING G-95	1	
74	050101100	O-RING G-110	1	
75	014210020	SOCKET HEAD 10X20 T	4	REPLACES 001521020
76	014210035	SOCKET HEAD BOLT 0X35 T	4	REPLACES 001521035
77	953405270	PLUG 1/4X14 13L	2	
78	953405260	PACKING 1/4(CU)	2	
80	354446170	PIN 6D-8.5L	2	
82	354212490	GUIDE CYLINDER	1	REPLACES 352210410, 352211240
83	352437340	STOPPER	2	
84	001520612	SOCKET HEAD BOLT 6X12 T	8	
85	026160140	SPRING PIN 6X14W	4	REPLACES 025406014
86	354010010	BELLOWS(L), ORANGE	1	REPLACES 354332700
87	050931500	O-RINGJAS3150	2	
88	352010020	CLAMP 150-180D	2	
88-1	359410020	BELLOWS CLAMP CP	2	
89	012710035	BOLT 10X35 H, SW	4	REPLACES 002211035
90	959010150	LEVELGAUGE, PLUG TYPE METAL	1	
91	953404670	COPPER PACKING 17X25.5X1	1	
92	050201500	O-RING P-150	1	
100	352985115	FOOT ASSY. 285W-6T	1	REPLACES 352910032, INCLUDES ITEMS W/#
100		FOOT ASSY. 330W-4.5	1	INCLUDES ITEMS W/*, CONTACT UNIT SALES/ACCESSORY ITEM
100*	352910081	FOOT ASSY. 330W-W/F. COVER	1	STD
101#	352108220	FOOT 285B-331L	1	OPTION
101*	352326620	FOOT 330B-331L	1	STD
102#	352108230	METAL SHEET 285W	1	OPTION
102*	352910081	METAL SHEET 330B	1	REPLACES 352326630
103	001611256	SUNK HEAD BOLT 12 X 80H	2	REPLACES 015112075 INCLUDES ITEMS W/%
104	001611260	SUNK HEAD BOLT 12 X100 H	2	REPLACES 001611259 INCLUDES ITEMS W/%
105*#	015110055	SUNK HEAD BOLT 10X55 H	7	REPLACES 001611051 INCLUDES ITEMS W/\$
106%	021112140	NYLON NUT M12	4	REPLACES 022711214
107	030212300	SW M12	4	
108*#	021110120	NYLON NUT M10	7	REPLACES 022711012
109*#	030210250	SW M10	7	
110	352322580	FOOT FITTING 25B-4.5T	2	
110	352322581	FOOT FITTING 38B-3T	2	
111*#	506404060	WASHER 11X34X3.2	1	REPLACES 301010540 #5
113	352441700	BASE PLATE	1	
113-1*#	354332070	FOOT COVER	1	
114	352441730	SPRING SEAT 80D-1.6T	1	
115	354329380	BELLOWS CLAMP	2	
116	354442340	BAND GUIDE, BELLOWS	2	
117	011008035	BOLT 8X35 H	2	REPLACES 001210835
118	020108060	NUT M8	2	

MT-85H — TANK AND HANDLE

TANK AND HANDLE



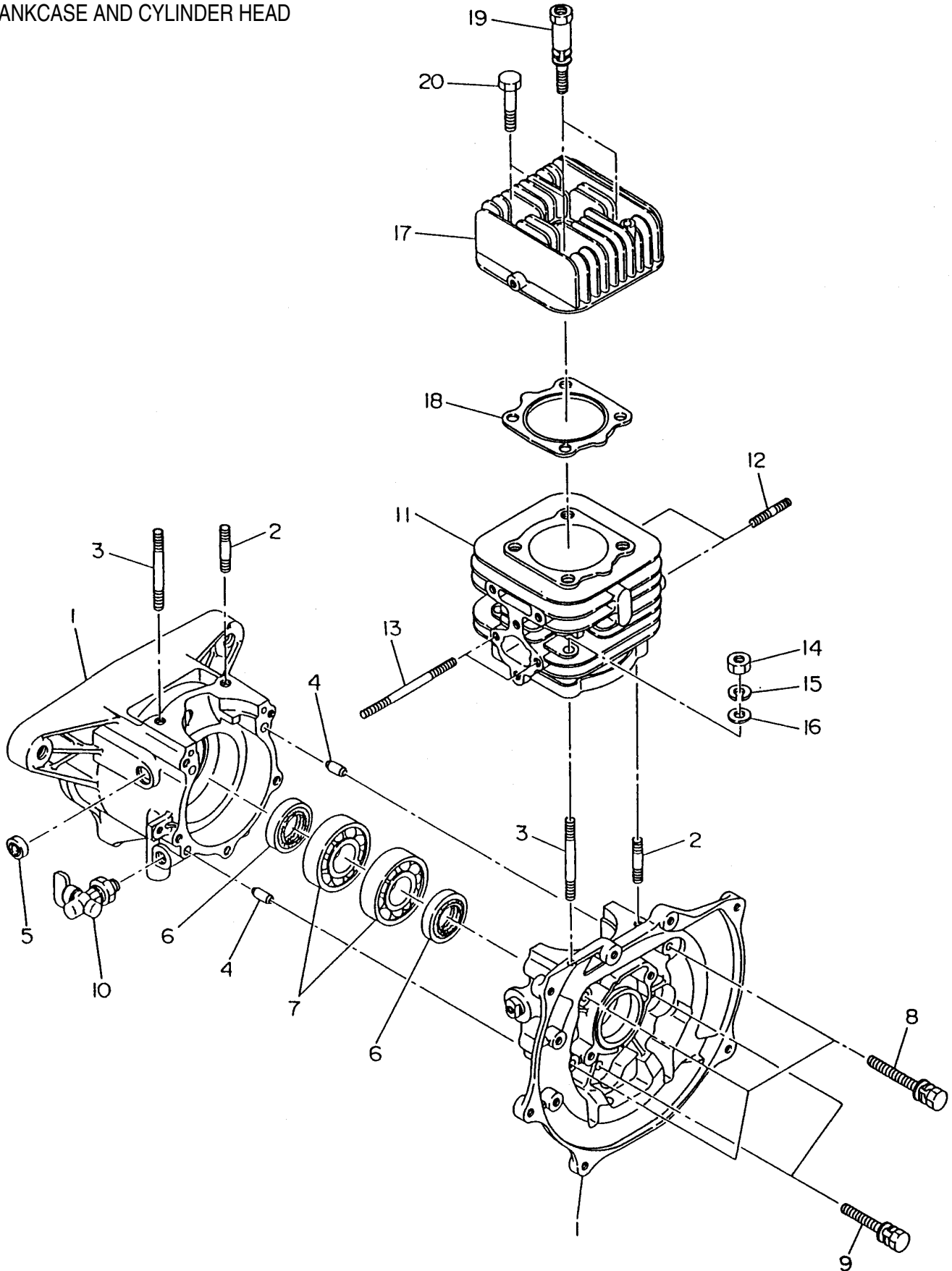
MT-85H — TANK AND HANDLE

TANK AND HANDLE

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
A	353910010	FUEL TANK ASSY.,3L	1	INCLUDES ITEMS W/*
121-1	354111831	HANDLE	1	
122	351319900	SHOCK ABSORBER	2	
123	014210020	SOCKET HEAD BOLT 10X20 T	4	REPLACES 001521020
124	033121009	TOOTHED LOCK WASHER B M10	4	
125	012210020	BOLT 10X20 H,SW	4	REPLACES 002211020
128	351010010	FUEL TANK,3.3L(CUBIC)STEEL	1	
128-1*	351110650	FUEL TANK 3L(P)PLASTIC	1	
129	954405080	FUEL FILTER	1	REPLACES 301010760
129-1*	954404890	FILTER,TANK/MR	1	
130	0430430015	FUEL TANK CAP	1	
130-1*	0430440033	FUEL TANK CAP	1	
131	954405990	FUEL COCK ASSY. CL-TYPE	1	INCLUDES ITEMS W/#, REPLACES 301322990 & 954300390
131-1#	0642001410	CUP	1	
131-2#	0642001420	SCREEN	1	
131-3#	06642001430	RUBBER PACKING	1	
132	3514-36350	FUEL HOSE R-150	1	
133	954404590	HOSE BAND 9.5D	2	
134	011808015	BOLT 8X15 H, SW, PW	4	REPLACES 002410815
134-1	011208030	BOLT 8X30 T	2	REPLACES 001220830
135	301420330	FUEL HOSE	1	REPLACES 301418140
136	301419750	FUEL FILTER CP, MQ75MIC.	1	
137	301420730	HOSE BAND(8)	2	REPLACES 954403030
138	303010450	BAND	1	
160	030208200	WASHER SW M8	2	
161	952401450	WASHER 8.5X22X3	2	
162	022710809	NYLON NUT M8	2	
163*	351437785	HOLDER, COCK	1	REPLACES 351437780
164*	351439290	PACKING, COCK HOLDER	1	
165*	954405080	STRAINER(#100)	1	

EC-12G ENGINE (ROBIN) — CRANKCASE AND CYL. HEAD

CRANKCASE AND CYLINDER HEAD



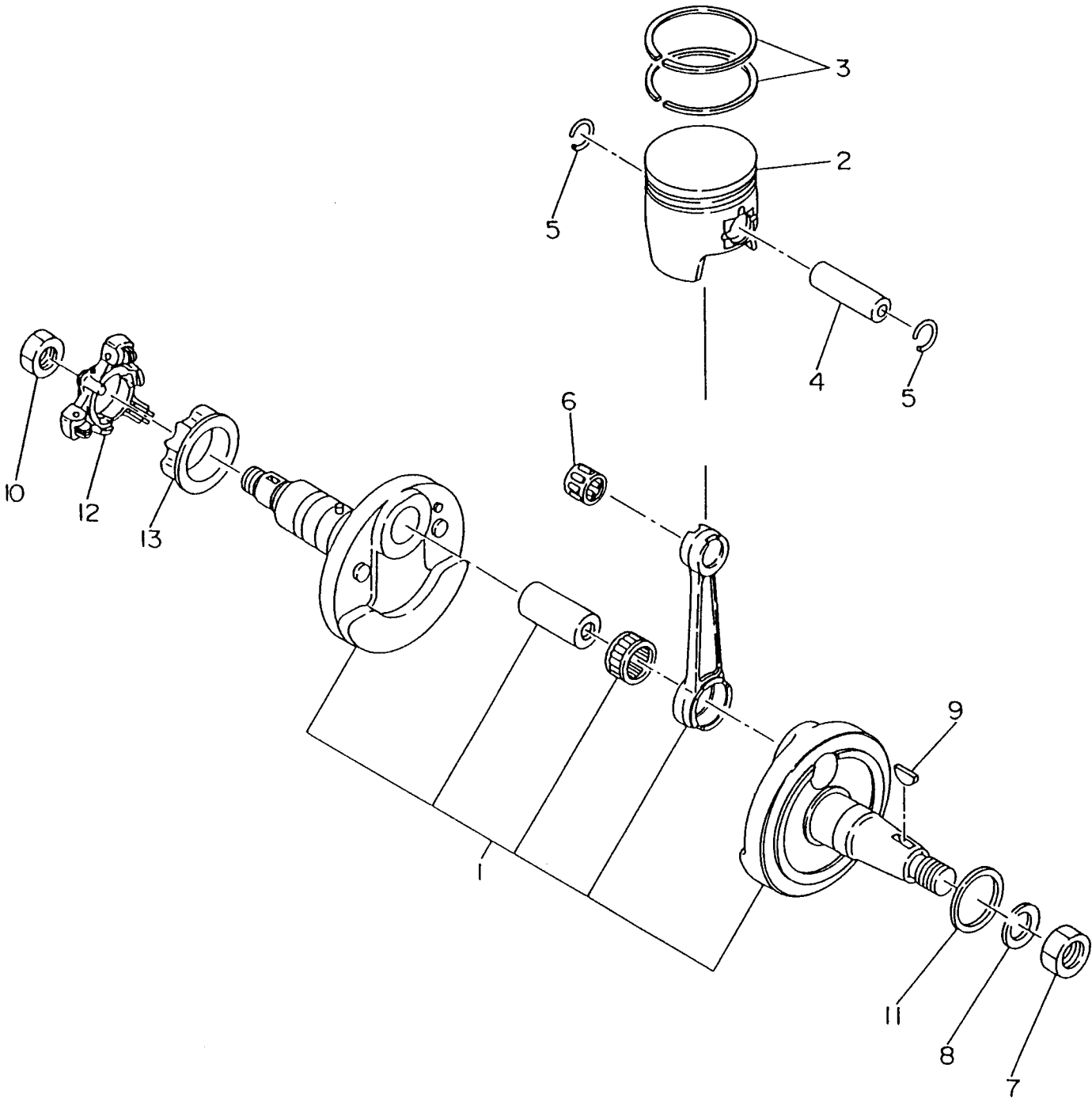
EC-12G ENGINE (ROBIN) — CRANKCASE AND CYL. HEAD

CRANKCASE AND CYLINDER HEAD

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY</u>	<u>REMARKS</u>
1	1611040101	CRANKCASE COMPL.	1	INCLUDES ITEMS W/*
2*	0013208401	STUD	2	
3*	0013208651	STUD	2	
4*	0310060010	DOWEL PIN	2	
5*	0440080010	OIL SEAL 7.4X14X4	1	
6*	0440250180	OIL SEAL EC13	2	
7*	0600250010	BALL BEARING 6205C3	2	
8*	0011406550	BOLT AND WASHER ASSY.	3	
9*	0011406400	BOLT AND WASHER ASSY.	2	
10	0643000101	DRAIN COCK	1	
11	1611240101	CYLINDER COMPL.	1	INCLUDES ITEMS W/#
12#	0013208351	STUD	2	
13#	0105060190	STUD	2	REPLACES 0105060191
14	020108060	NUT	4	REPLACES 0021808000
15	030208200	SPRING WASHER	4	
16	0031008000	WASHER	4	
17	1571310113	CYLINDER HEAD	1	
18	1611510101	GASKET COMPL. (HEAD)	1	REPLACES 1611510111
19	0130080071	BOLT AND WASHER ASSY.	2	
20	0011408350	BOLT AND WASHER ASSY.	2	

EC-12G ENGINE (ROBIN) — CRANKSHAFT AND PISTON

CRANKCASE AND PISTON



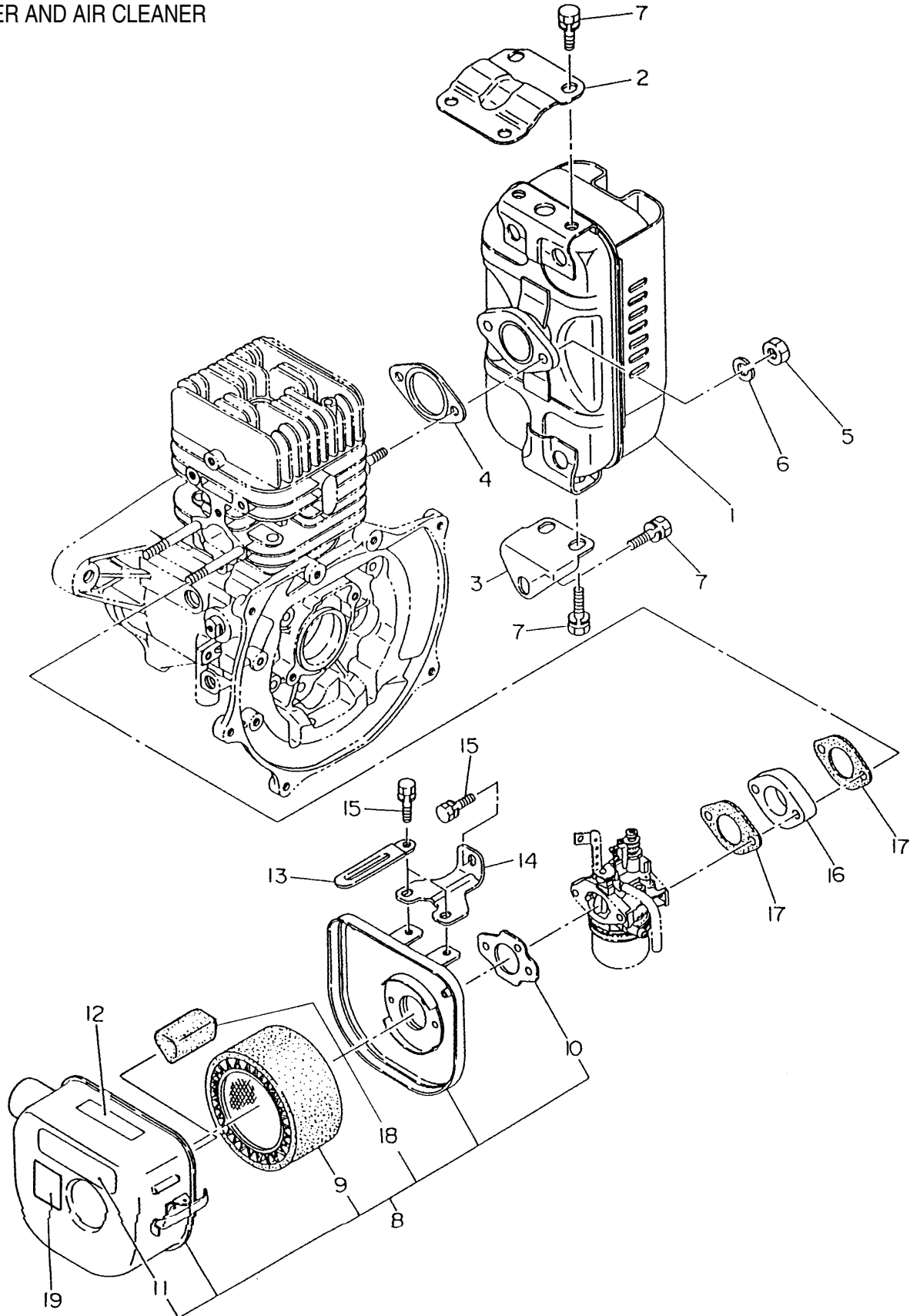
EC-12G ENGINE (ROBIN) — CRANKSHAFT AND PISTON

CRANKSHAFT AND PISTON

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY</u>	<u>REMARKS</u>
1	1612040100	CRANKSHAFT ASSY.	1	
2	1612340101	PISTON COMPL. STD	1	
2	1612340201	PISTON COMPL. 0.25 OS	1	
2	1612340301	PISTON COMPL. 0.5 OS	1	
3	1612350107	PISTON RING SET STD.	1	
3	1612350207	PISTON RING SET 0.25 OS	1	
3	1612350307	PISTON RING SET 0.5 OS	1	
4	1572330103	PISTON PIN	1	
5	056-5120010	CLIP	2	
6	0610120010	NEEDLE BEARING	1	
7	0021714000	NUT	1	
8	0032014000	SPRING WASHER	1	
9	0053204201	WOODRUFF KEY	1	
10	0173120010	LOCK NUT	1	
11	1612500103	SPACER 0.1T	3	
11	1612500203	SPACER 0.3T	1	
12	1574170101	GOVENOR PLATE COMPL.	1	
13	1574190103	GOVENOR SLEEVE	1	

EC-12G ENGINE (ROBIN) — MUFFLER AND AIR CLEANER

MUFFLER AND AIR CLEANER



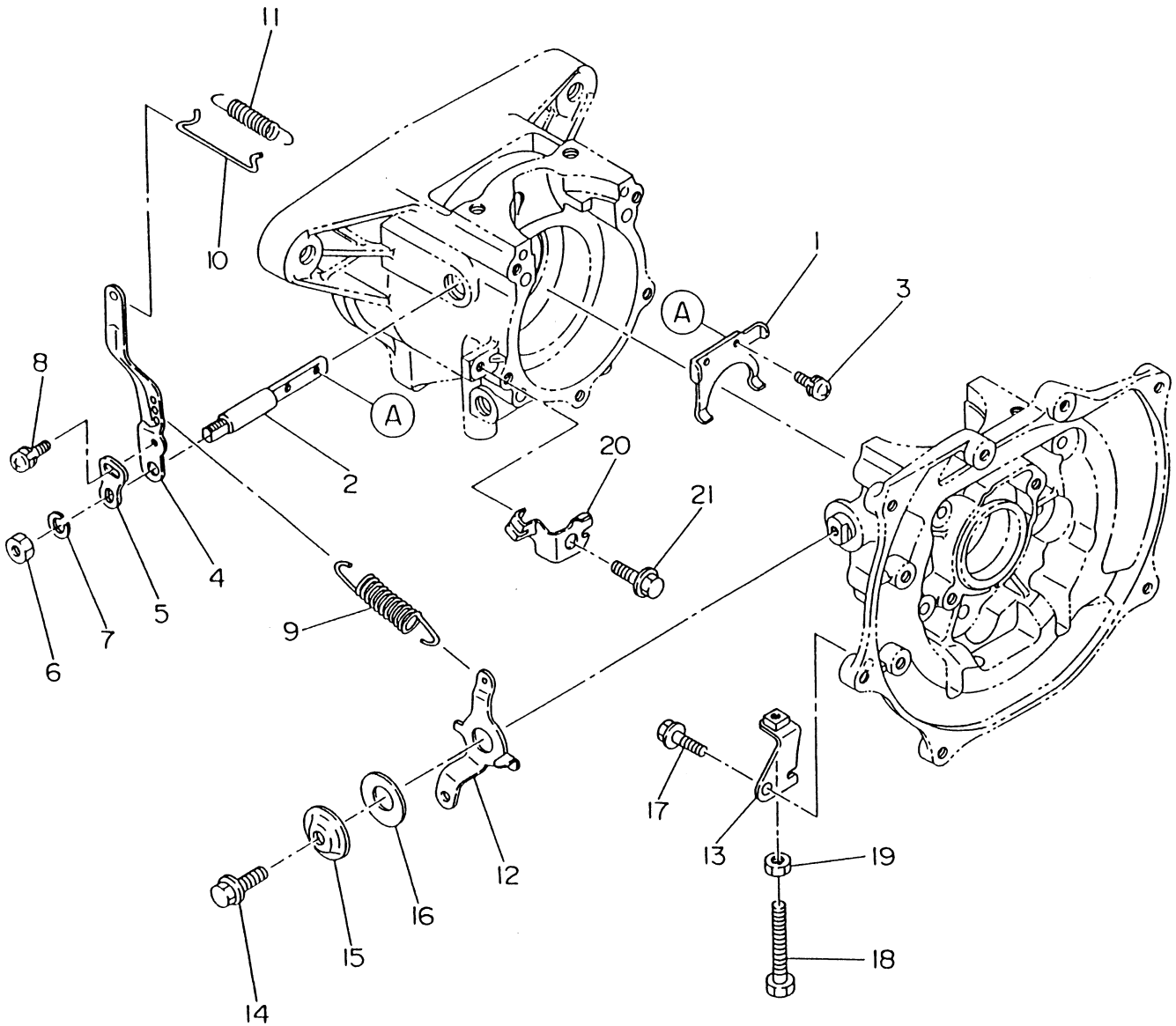
EC-12G ENGINE (ROBIN) — MUFFLER AND AIR CLEANER

MUFFLER AND AIR CLEANER

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY</u>	<u>REMARKS</u>
1	1613010111	MUFFLER COMPL.	1	
2	1613500101	MUFFLER BRACKET	1	
3	1613510101	MUFFLER BRACKET	1	
4	1613520101	GASKET COMPL. (EXHAUST)	1	
5	020108060	NUT	2	REPLACES 0021908000
6	030208200	SPRING WASHER	2	REPLACES 0032008000
7	0011308160	BOLT AND WASHER ASSY.	7	
8	1613270310	AIR CLEANER ASSY.	1	REPLACES 16133270300 INCLUDES ITEMS W/#
9#	1573620101	ELEMENT SET	1	
10#	2263272008	GASKET (AIR CLEANER)	1	
11*#	1073273308	LABEL	1	
12*	0732004430	LABEL (CHOKE)	1	REPLACES 0732001930
13	1507520103	CLAMP	1	
14	1613600111	CLEANER BRACKET	1	
15	0016606120	BOLT AND WASHER ASSY.	3	REPLACES 0011006120
16	1573290103	INSULATOR	1	
17	1573500103	GASKET, INSULATOR	2	
18	1613261008	ELEMENT	1	
19#	920203980	DECAL, ELEMENT SET	1	INCLUDES ITEMS W/*

EC-12G ENGINE (ROBIN) — GOVERNOR

GOVERNOR



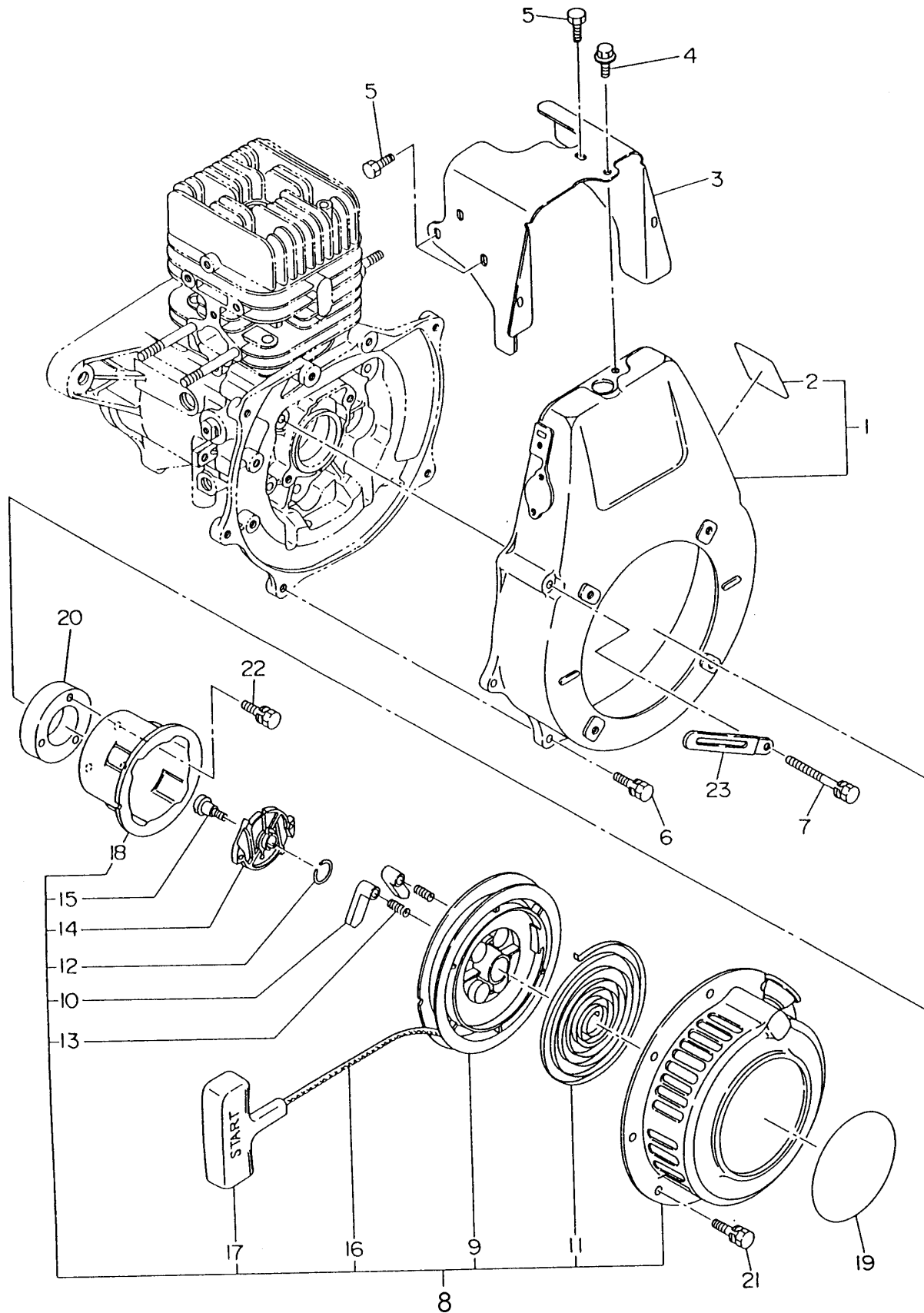
EC-12G ENGINE (ROBIN) — GOVERNOR

GOVERNOR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY</u>	<u>REMARKS</u>
1	1574210103	GOVERNOR YOKE	1	
2	1064220103	GOVERNOR SHAFT	1	REPLACES 1574220103
3	0043504060	SCREW	2	
4	1614230101	GOVERNOR LEVER	1	
5	1064240101	ADJUSTING PLATE	1	REPLACES 1574240101
6	0021906000	NUT	1	
7	030206150	SPRING WASHER	1	REPLACES 0032006000
8	0043504080	SCREW AND WASHER ASSY.	1	REPLACES 0043604080
9	1614250113	GOVERNOR SPRING	1	REPLACES 1614250101
10	2274270101	GOVERNOR ROD	1	
11	1064280113	ROD SPRING	1	
12	1614341001	SPEED CONTROL COMPL.	1	
13	1614350111	STOP PLATE COMPL.	1	
14	0110060050	FLANGE BOLT	1	REPLACES 0110060010
15	1574510113	COVER	1	REPLACES 1574510101
16	1574610103	WASHER	1	
17	0110060050	FLANGE BOLT	1	REPLACES 0110060010
18	0016506350	BOLT	1	
19	0021706000	NUT	1	
20	1614420101	WIRE BRACKET	1	
21	0110060050	FLANGE BOLT	1	REPLACES 0110060010

EC-12G ENGINE (ROBIN) — BLOWER HOUSING/RECOIL STR.

BLOWER HOUSING AND RECOIL STARTER



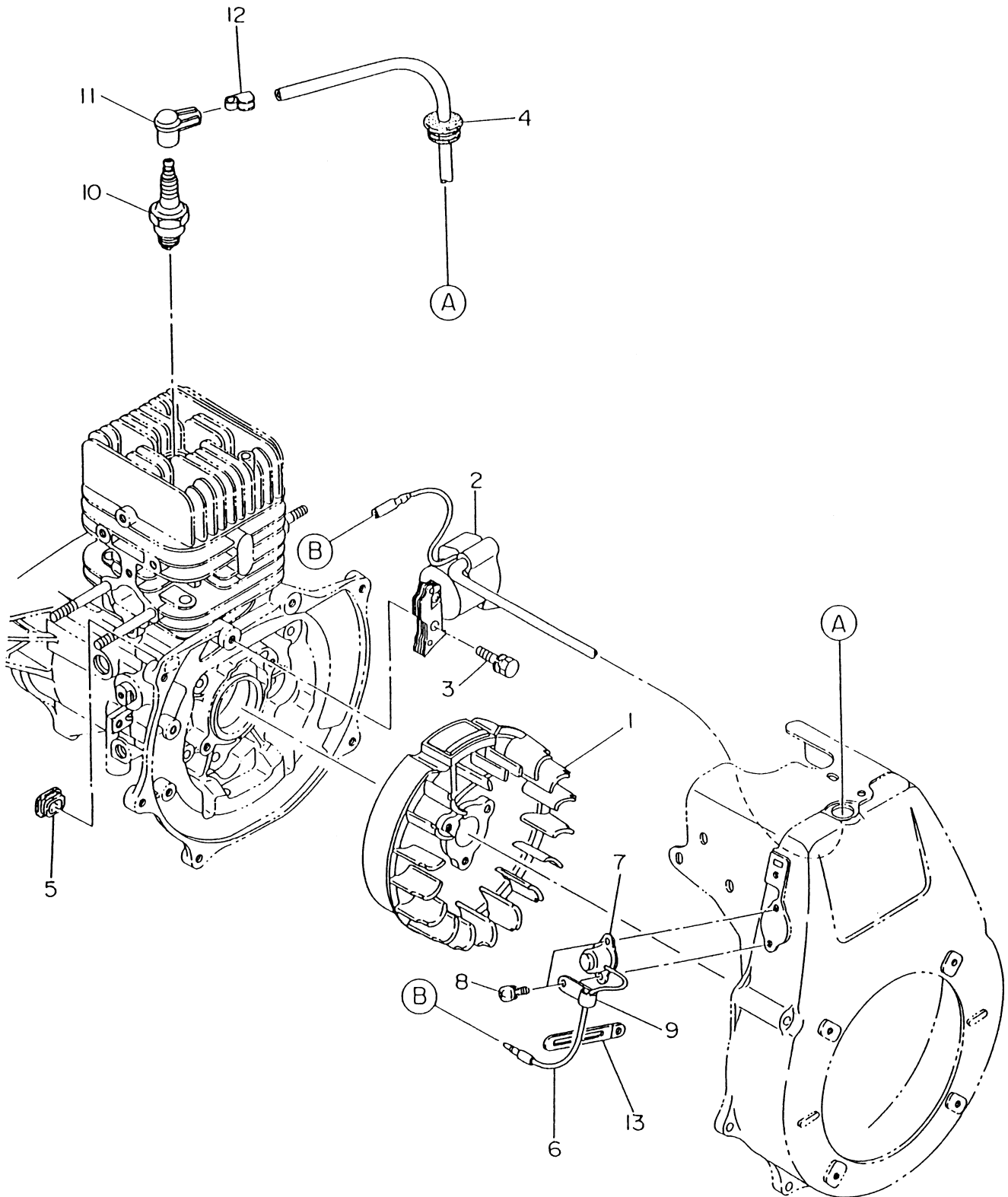
EC-12G ENGINE (ROBIN) — BLOWER HOUSING/RECOIL STR.

BLOWER HOUSING AND RECOIL STARTER

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY</u>	<u>REMARKS</u>
1	1615110701	BLOWER HOUSING COMPL.	1	INCLUDES ITEM W/ * REPLACES 161511001
2*	1619180203	LABEL, ENGINE NAME	1	
3	1615260123	CYLINDER BAFFLE	1	
4	0110060050	FLANGE BOLT	2	REPLACES 0110060010
5	0152060070	TAPPING BOLT	3	
6	0011406200	BOLT AND WASHER ASSY.	3	
7	0011406550	BOLT AND WASHER ASSY.	2	
8	1615010400	RECOIL STARTER ASSY.	1	INCLUDES ITEM W/#
9#	1615012008	REEL	1	
10#	1615012508	RATCHET	2	
11#	2155051508	SPIRAL SPRING	1	
12#	2275013108	FRICTION SPRING	1	
13#	2275013508	RETURN SPRING	2	
14#	1615015008	RATCHET GUIDE	1	
15#	2275015208	SET SCREW	1	
16#	1615011008	STARTER ROPE	1	
17#	2065010108	STARTER KNOB	1	REPLACES 2365010108
18#	1615014518	STARTER PULLEY	1	
19	920100240	DECAL, (M-MARK)	1	
20	1615500103	PULLEY SPACER	1	
21	0016606120	BOLT AND WASHER ASSY.	4	REPLACES 0011006120
22	0011306250	BOLT AND WASHER ASSY.	3	
23	1507520103	CLAMP	1	

EC-12G ENGINE (ROBIN) — ELECTRIC DEVICE

ELECTRIC DEVICE



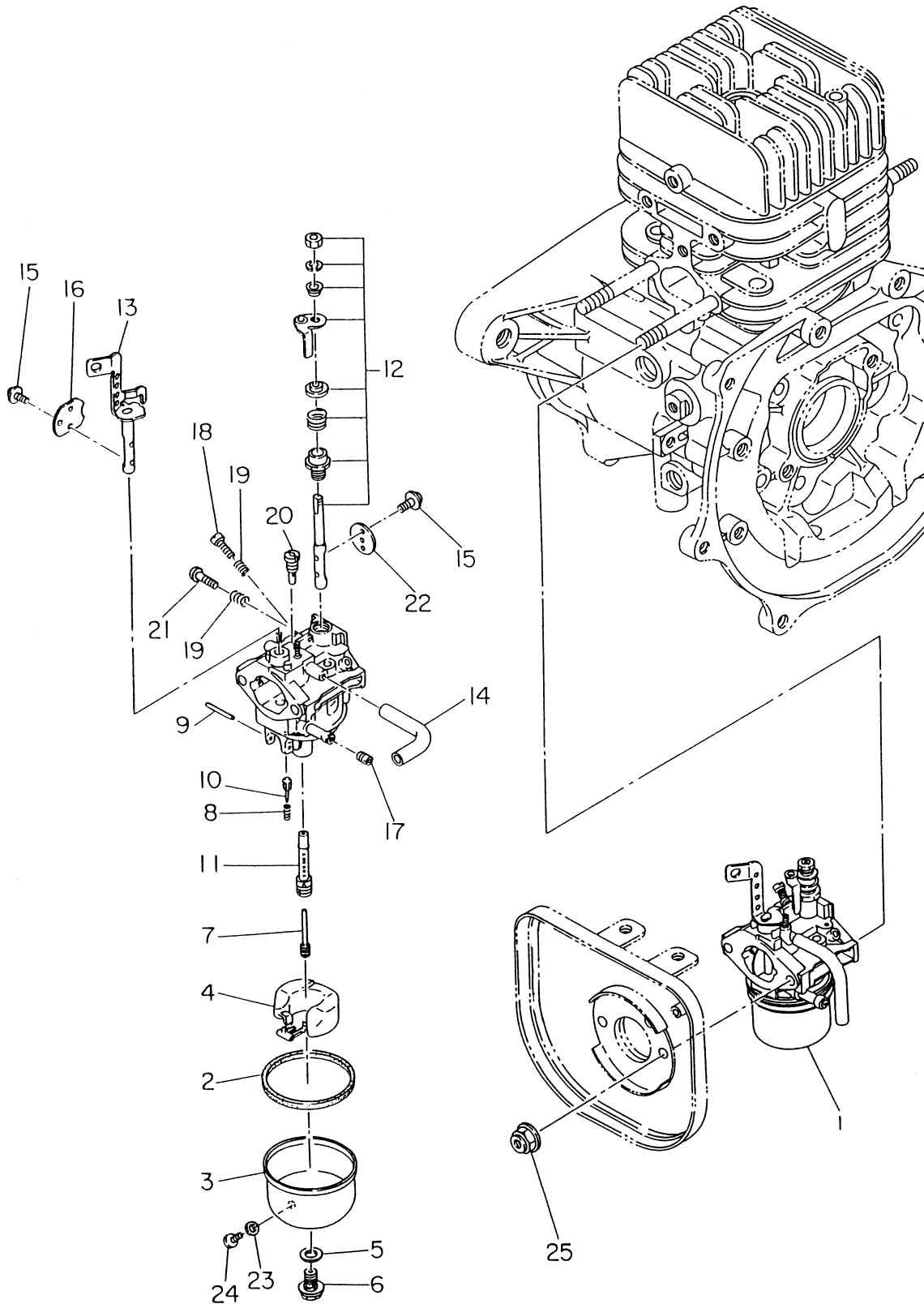
EC-12G ENGINE (ROBIN) — ELECTRIC DEVICE

BLOWER HOUSING AND RECOIL STARTER

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY</u>	<u>REMARKS</u>
1	1617010100	MAGNETO ASSY.	1	INCLUDES ITEM W/*
1*	1617012008	FLYWHEEL COMPL.	1	
2*	1617013008	IGNITION COIL, COMPL.	1	
3	0011006200	BOLT AND WASHER ASSY.	2	
4	1617500103	GROMMET, HIGH	1	
5	1577500203	GROMMET	1	
6	1067330101	WIRE COMPL.	1	COMES WITH STOP BUTTON
7	0669900217	STOP BUTTON	1	REPLACES 0662000070
8	0043504080	SCREW AND WASHER ASSY.	2	
9	0566030010	CLAMP	1	
10	0650140460	SPARK PLUG	1	
11	2307510113	SPARK PLUG CAP	1	
12	0659000010	PLUG TERMINAL	1	
13	1507520103	CLAMP	1	

EC-12G ENGINE (ROBIN) — CARBURETOR

CARBURETOR



EC-12G ENGINE (ROBIN) — CARBURETOR

CARBURETOR

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY</u>	<u>REMARKS</u>
1	1616230100	CARBURETOR ASSY.	1	INCLUDES ITEM W/ * REPLACES 1616230120
2*	2366254008	PACKING	1	
3*	1616235008	FLOAT BODY	1	
4*	5806083350	FLOAT	1	REPLACES 2366250508
5*	2366245008	PACKING	1	
6*	1616235108	BOLT	1	
7*	2266240008	MAIN JET	1	
8*	2366244508	SPRING	1	
9*	2146251508	FLOAT PIN	1	
10*	1616235208	NEEDLE	1	
11*	1616244008	MAIN NOZZLE	1	
12*	1616253008	SHAFT ASSY. (THROTTLE)	1	
13*	1616252038	SHAFT ASSY. (CHOKE)	1	REPLACES 1616252008
14*	1616235308	HOSE	1	
15*	2346245008	SCREW	4	
16*	5806083310	CHOKE VALVE	1	REPLACES 1616252508
17*	1616240008	MAIN JET	1	
18*	2136239008	ADJUSTER	1	
19*	2096244508	SPRING	2	REPLACES 2106231808
20*	2076242008	PILOT JET	1	
21*	5416002230	SCREW	1	REPLACES 1066239308
22*	1616253508	THROTTLE VALVE	1	
23*	2366254108	PACKING	1	
24*	2366235008	SCREW	1	
25	0176060020	SELF LOCK NUT	2	

PAYMENT TERMS

Terms of payment for parts are net 10 days.

FREIGHT POLICY

All parts orders will be shipped collect or prepaid with the charges added to the invoice. All shipments are F.O.B. point of origin. Multiquip's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

MINIMUM ORDER

The minimum charge for orders from Multiquip is \$15.00 net. Customers will be asked for instructions regarding handling of orders not meeting this requirement.

RETURNED GOODS POLICY

Return shipments will be accepted and credit will be allowed, subject to the following provisions:

1. A Returned Material Authorization must be approved by Multiquip prior to shipment.
2. To obtain a Return Material Authorization, a list must be provided to Multiquip Parts Sales that defines item numbers, quantities, and descriptions of the items to be returned.
 - a. The parts numbers and descriptions must match the current parts price list.
 - b. The list must be typed or computer generated.
 - c. The list must state the reason(s) for the return.
 - d. The list must reference the sales order(s) or invoice(s) under which the items were originally purchased.
 - e. The list must include the name and phone number of the person requesting the RMA.
3. A copy of the Return Material Authorization must accompany the return shipment.
4. Freight is at the sender's expense. All parts must be returned freight prepaid to Multiquip's designated receiving point.
5. Parts must be in new and resalable condition, in the original Multiquip package (if any), and with Multiquip part numbers clearly marked.
6. The following items are not returnable:
 - a. Obsolete parts. (If an item is listed in the parts price book as being replaced by another item, it is obsolete.)
 - b. Any parts with a limited shelf life (such as gaskets, seals, "O" rings, and other rubber parts) that were purchased more than six months prior to the return date.
 - c. Any line item with an extended dealer net price of less than \$5.00.
 - d. Special order items.
 - e. Electrical components.
 - f. Paint, chemicals, and lubricants.
 - g. Decals and paper products.
 - h. Items purchased in kits.
7. The sender will be notified of any material received that is not acceptable.
8. Such material will be held for 5 working days from notification, pending instructions. If a reply is not received within 5 days, the material will be returned to the sender at his expense.
9. Credit on returned parts will be issued at dealer net price at time of the original purchase, less a 15% restocking charge.
10. In cases where an item is accepted for which the original purchase document can not be determined, the price will be based on the list price that was effective twelve months prior to the RMA date.
11. Credit issued will be applied to future purchases only.

PRICING AND REBATES

Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price. Rebates for price declines and added charges for price increases will not be made for stock on hand at the time of any price change.

Multiquip reserves the right to quote and sell direct to Government agencies, and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

SPECIAL EXPEDITING SERVICE

A \$20.00 to \$50.00 surcharge will be added to the invoice for special handling including bus shipments, insured parcel post or in cases where Multiquip must personally deliver the parts to the carrier.

LIMITATIONS OF SELLER'S LIABILITY

Multiquip shall not be liable here under for damages in excess of the purchase price of the item with respect to which damages are claimed, and in no event shall Multiquip be liable for loss of profit or good will or for any other special, consequential or incidental damages.

LIMITATION OF WARRANTIES

No warranties, express or implied, are made in connection with the sale of parts or trade accessories nor as to any engine not manufactured by Multiquip. Such warranties made in connection with the sale of new, complete units are made exclusively by a statement of warranty packaged with such units, and Multiquip neither assumes nor authorizes any person to assume for it any other obligation or liability whatever in connection with the sale of its products. A part from such written statement of warranty, there are no warranties, express, implied or statutory, which extend beyond the description of the products on the face hereof.

PARTS AND OPERATION MANUAL

HERE'S HOW TO GET HELP

*PLEASE HAVE THE MODEL AND SERIAL NUMBER
ON-HAND WHEN CALLING*

PARTS DEPARTMENT

800-427-1244 or 310-537-3700

FAX: 800-672-7877 or 310-637-3284

SERVICE DEPARTMENT/TECHNICAL ASSISTANCE

800-478-1244 or 310-537-3700

FAX: 310- 537-4259

WARRANTY DEPARTMENT

888-661-4279, or 310-661-4279

FAX: 310- 537-1173

MAIN

800-421-1244 or 310-537-3700

FAX: 310-537-3927



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